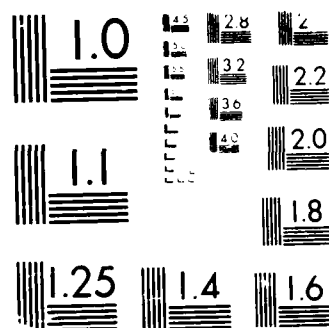


80-A191 210 PLASMA WAVE INSTRUMENT ON THE AMPTE/IRN (ACTIVE 1/1
MAGNETOSPHERIC PARTICLE T (U) IOWA UNIV IOWA CITY DEPT
OF PHYSICS AND ASTRONOMY D A GURNETT 30 SEP 87
UNCLASSIFIED N00014-82-K-0183 F/G 4/1 ML





MICROCOPY RESOLUTION TEST CHART
 NATIONAL BUREAU OF STANDARDS-1963-A

AD-A191 210

DTIC FILE COPY

OFFICE OF NAVAL RESEARCH

PUBLICATIONS / PATENTS / PRESENTATIONS / HONORS REPORT

for

1 October 1986 through 30 September 1987

for

Contract N00014-82-K-0183

R&T No.4143088

-Plasma Wave Instrument on the AMPTE/IRM Spacecraft

Donald A. Gurnett

The University of Iowa
Department of Physics and Astronomy
Iowa City, IA 52242-1479

DTIC
ELECTE
FEB 01 1988
S D
H

Reproduction in whole, or in part, is permitted for any purpose of the United States Government.

This document has been approved for public release and sale; its distribution is unlimited.

88 1 25 089

(a) Papers Submitted to Refereed Journals (and not yet published)

1. N. Omidi, T. Z. Ma, K. Quest, M. Ashour-Abdalla, D. A. Gurnett, and R. Sydora
- Simulation and Non-Linear Stage of the Electrostatic Waves Observed During the AMPTE Lithium Release in the Solar Wind;
Adv. in Space Res., in press, 1987.

(Other support through the University: None)

2. R. R. Anderson, D. A. Gurnett, B. Haeusler, H. C. Koons, R. H. Holzworth, R. A. Treumann, O. H. Bauer, G. Haerendel, H. Luehr, L. J. Woolliscroft, and M. P. Gough
Electron Number Density from the AMPTE/IRM Plasma Wave Experiment During Solar Wind Lithium Releases
J. Geophys. Res., submitted, 1987.

(Other support through the University: NASA Grant NGL-16-001-043,
NASA Grant NGL-16-001-002,
ONR Contract N00014-85-K-0404)

3. H. C. Koons, R. R. Anderson, O. H. Bauer, D. A. Gurnett, G. Haerendel, R. H. Holzworth, J. L. Roeder, and R. Treumann
A Comparison of the Plasma Wave Spectra From 100 Hz to 100 kHz for the Eight AMPTE Chemical Releases,
J. Geophys. Res., submitted, 1987.

(Other support through the University: NASA Grant NGL-16-001-043,
NASA Contract NAS5-28701,
NASA Grant NGL-001-002,
ONR Contract N00014-85-K-0404)

4. T. G. Onsager, R. H. Holzworth, H. C. Koons, O. H. Bauer, G. Haerendel, R. Treumann, D. A. Gurnett, R. R. Anderson, H. Luehr, and C. W. Carlson
High Frequency Electrostatic Waves at Earth's Bow Shock)
J. Geophys. Res., submitted, 1987.

(Other support through the University: NASA Grant NGL-16-001-043,
NASA Grant NGL-16-001-002,
ONR Contract N00014-K-85-0404)

5. N. Omidi, K. Akimoto, D. A. Gurnett, and R. R. Anderson
Nature and the Nonlinear Evolution of Electrostatic Waves Associated with the AMPTE Solar Wind Releases,
J. Geophys. Res., submitted, 1987.

(Other support through the University: NASA Grant NGL-16-001-043)

For

&I

ed

tion

istribution/

Availability Codes

Avail and/or

Dist Special

A-1		
-----	--	--

(b) Papers Published in Refereed Journals

1. R. A. Treumann, O. H. Bauer, J. LaBelle, G. Haerendel, P. J. Christiansen, A. G. Darbyshire, A. J. Norris, L. J. C. Wooliscroft, R. R. Anderson, D. A. Gurnett, R. W. Holzworth, H. C. Koons, and J. Roeder
Electron Plasma Waves in the Solar Wind: AMPTE/IRM and UKS Observations,
Adv. in Space Res., 6, 93, 1986.

(Other support through the University: NASA Grant NGL-16-001-043,
NASA Grant NGL-16-001-002,
ONR Contract N00014-K-85-0404)

2. T. Z. Ma, D. A. Gurnett, and N. Omid
An Analysis of the Shocklike Electrostatic Noise Observed During AMPTE
Solar Wind Ion Releases
J. Geophys. Res., 92, 2555, 1987.

(Other support through the University: NASA Grant NGL-16-001-043,
NASA Grant NGL-16-001-002,
ONR Contract N00014-K-85-0404)

3. J. L. Roeder, H. C. Koons, R. H. Holzworth, R. R. Anderson, O. H. Bauer,
D. A. Gurnett, G. Haerendel, B. Haeusler, and R. Treumann
Electron Cyclotron Harmonic Waves Observed by the AMPTE-IRM Plasma Wave
Experiment Following a Lithium Release in the Solar Wind
J. Geophys. Res., 92, 5768, 1987.

(Other support through the University: NASA Grant NGL-16-001-043,
NASA Contract NAS5-28701,
NASA Grant NGL-16-001-002,
ONR Contract N00014-K-85-0404)

4. J. LaBelle, R. A. Treumann, G. Haerendel, O. H. Bauer, G. Paschmann,
W. Baumjohann, H. Luehr, R. R. Anderson, H. C. Koons, and R. H. Holzworth
AMPTE IRM Observations of Waves Associated with Flux Transfer Events in
the Magnetosphere
J. Geophys. Res., 92, 5827, 1987.

(Other support through the University: NASA Grant NGL-16-001-043,
NASA Contract NAS5-28701,
NASA Grant NGL-16-001-002,
ONR Contract N00014-K-85-0404)

5. H. C. Koons, J. L. Roeder, O. H. Bauer, G. Haerendel, R. Treumann,
R. R. Anderson, D. A. Gurnett, and R. H. Holzworth
Observation of Nonlinear Wave Decay Processes in the Solar Wind by the
AMPTE IRM Plasma Wave Experiment
J. Geophys. Res., 92, 5865, 1987.

(Other support through the University: NASA Grant NGL-16-001-043,
NASA Grant NGL-16-001-002,
ONR Contract N00014-K-85-0404)

6. P. A. Bernhardt, R. A. Roussel-Dupre, M. B. Pongratz, G. Haerendel, A. Valenzuela, D. A. Gurnett, and R. R. Anderson
Observations and Theory of the AMPTE Magnetotail Barium Releases
J. Geophys. Res., 92, 5777, 1987.
(Other support through the University: None)

(c) Books Submitted for Publication

None.

(d) Books Published

None.

(e) Patents Filed

None.

(f) Patents Granted

None

(g) Invited Presentations at Topical or Scientific/Technical Society Conferences -

Presented at Kyoto Workshop on Active Experiments, Kyoto, Japan, October 18-22, 1987

1. R. R. Anderson, D. A. Gurnett, G. Haerendel, O. H. Bauer, B. Haeusler, R. A. Treuman, H. C. Koons, R. H. Holzworth
Plasma Wave Observations Associated with the AMPTE Ion Releases,

(h) Contributed Presentations at Topical or Scientific/Technical Society Conferences -

Presented at Fall American Geophysical Union, San Francisco, California, December 8-12, 1986:

1. A. F. Cheng, D. G. Sibeck, S. M. Krimigis, R. W. McEntire, R. J. Strangeway, F. L. Scarf, L. J. Zanetti
A Comparison of High-Resolution Ion Pitch Angle Distributions and Plasma Wave Activity Near the Bow Shock on November 1, 1984
2. T. Onsager, R. H. Holzworth, H. C. Koons, O. H. Bauer, G. Haerendel, R. Treumann, D. A. Gurnett, R. R. Anderson, and H. Luhr
Magnetic Field Dependence of Electrostatic Waves in the Earth's Foreshock and Magnetosheath

3. J. LaBelle, G. Haerendel, R. A. Treumann, W. Baumjohann, O. H. Bauer, G. Paschmann, N. Sckopke, R. R. Anderson, D. A. Gurnett, H. C. Koons, R. Holzworth, and H. Luehr
AMPTE/IRM Traversals of the Plasmopause and the Inner Edge of the Ring Current
4. J. L. Roeder, H. C. Koons, O. H. Bauer, G. Haerendel, R. Treumann, R. R. Anderson, D. A. Gurnett, and R. H. Holzworth
A Survey of Impulsive Broadband Electrostatic Waves in the Magnetosphere.

(i) Honors/Awards/Prizes

None.

(j) Graduate Students and Postdoctorals Supported Under the CRP for the Year Ending 1 October 1987

1. Roger R. Anderson
2. Ti-Ze Ma

END

DATE

FILMED

5-88

DTIC